Kit Instructions

GRACO

## ExactaBlend™ AGP Advanced Glazing Proportioner

# Heated Platen Kit

332511A

EN

**For heating bulk supply of medium to high viscosity polysulfide and urethane materials. For professional use only.**

**Not approved for use in explosive atmospheres or hazardous locations.**

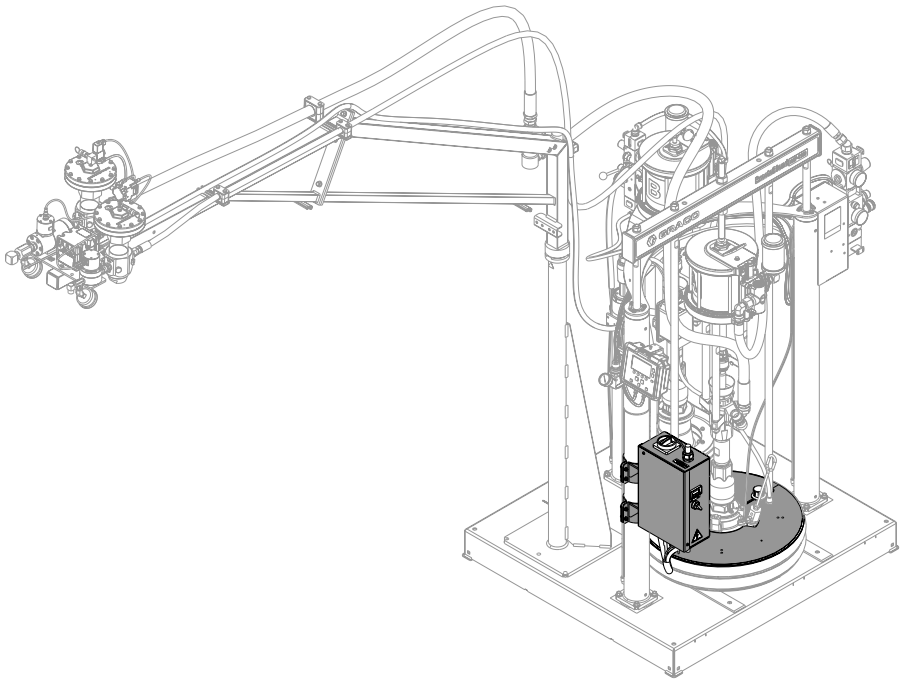
## 24R200

Heated platen kit, high volume

Refer to ExactaBlend AGP Advanced Glazing Proportioner, Setup-Operation manual for maximum working pressure and model information.

### Important Safety Instructions

Read all warnings and instructions in this manual and the ExactaBlend AGP Advanced Glazing Proportioner, Setup-Operation manual. Save all instructions.



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PROVEN QUALITY. LEADING TECHNOLOGY.

# Related Manuals

Refer to ExactaBlend AGP Advanced Glazing Proportioner, Setup-Operation manual for the complete list of related manuals.

# Contents

**Related Manuals . . . . . 2**
**Contents . . . . . 2**
**Warnings . . . . . 3**
**Overview . . . . . 3**
System Description . . . . . 3
Power Requirements . . . . . 3
**Component Identification . . . . . 4**
Heated Platen Kit . . . . . 4
Heat Controller . . . . . 5
**Installation . . . . . 6**
Grounding . . . . . 6
**Setup . . . . . 13**
**Operation . . . . . 14**
Startup . . . . . 14
Shutdown . . . . . 14
**Maintenance . . . . . 15**
Platen Maintenance . . . . . 15
**Troubleshooting . . . . . 16**
Common Problems . . . . . 16
**Repair . . . . . 18**
Replace Platen Heaters and Sensor . . . . . 18
**Schematic . . . . . 19**
**Parts . . . . . 20**
Heated Platen Kit, 24R200 . . . . . 20
Heat Enclosure, 24R870 . . . . . 24
**Graco Standard Warranty . . . . . 28**
**Graco Information . . . . . 28**

# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

**⚠WARNING**

**ELECTRIC SHOCK HAZARD**

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power at main switch before disconnecting any cables and before servicing or installing equipment.
- Connect only to grounded power source.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

**BURN HAZARD**

Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.

# Overview

## System Description

The heated platen kit is a field installed kit to add heat to the platen. The additional heat may change the viscosity properties of the material and allow the material to flow easier through the system.

## Power Requirements

A 25A (minimum) - 30A (maximum) circuit breaker must be installed on the incoming power supply.

| Nominal Voltage** | Wattage | Amps* |
|---|---|---|
| 240 V | 3,500 per Platen | 20 |

* *Add to power requirements of ExactaBlend AGP Advanced Glazing Proportioner system. Amps maximum per leg shown.*

** *190-264 voltage range acceptable.*

# Component Identification

## Heated Platen Kit

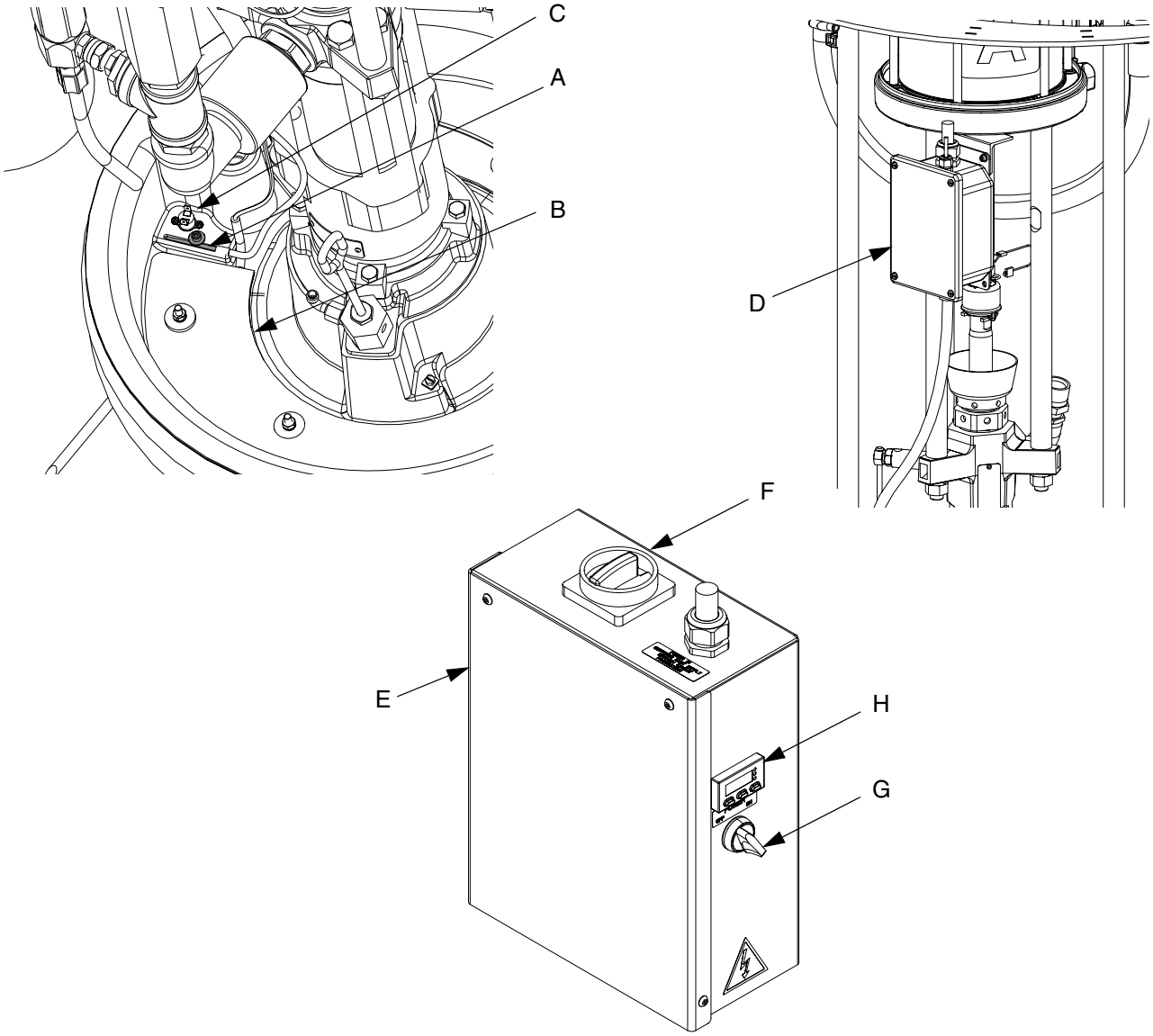



**FIG. 1: Heated Platen Kit**

**Key:**

**A RTD Temperature Sensor**
**B Heater Coil**
**C Temperature Limit Switch**
**D Junction Box**
**E Heat Electrical Enclosure**
**F Main Power Switch**
**G Heater Power Switch**
**H Heat Controller**

# Heat Controller

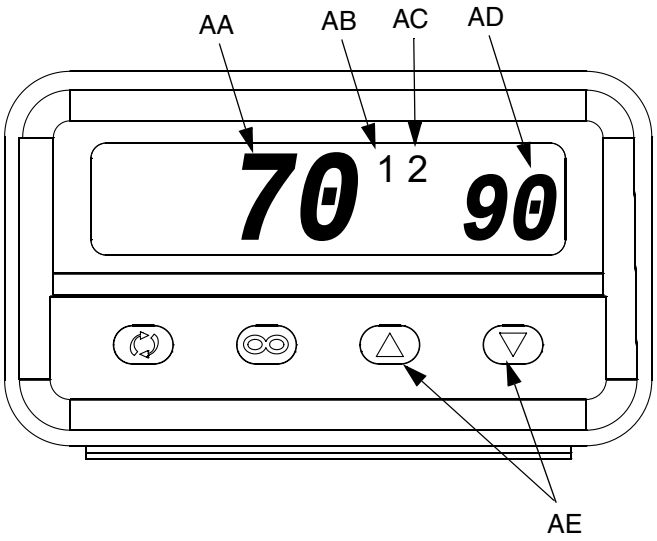
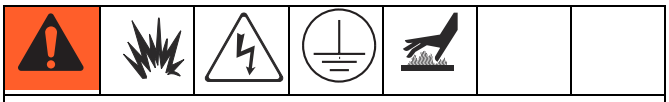



**FIG. 2: Heat Controller**

**Key:**
**AA Current Temperature**
**AB Power is Supplied to Heater**
**AC Power is Supplied to Heat Overtemp Contactor**
**AD Desired Temperature**
**AE Temperature Adjustment**

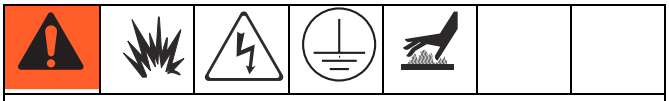
# Installation



To avoid serious injury or machine damage, all electrical connections need to be done by a qualified electrician in compliance with local codes.

## Grounding

Ground the system as instructed within this manual.



The equipment must be grounded to reduce the risk of static sparking and electric shock. Electric or static sparking can cause fumes to ignite or explode. Improper grounding can cause electric shock. Grounding provides an escape wire for the electric current.

## 1. Access the Platen

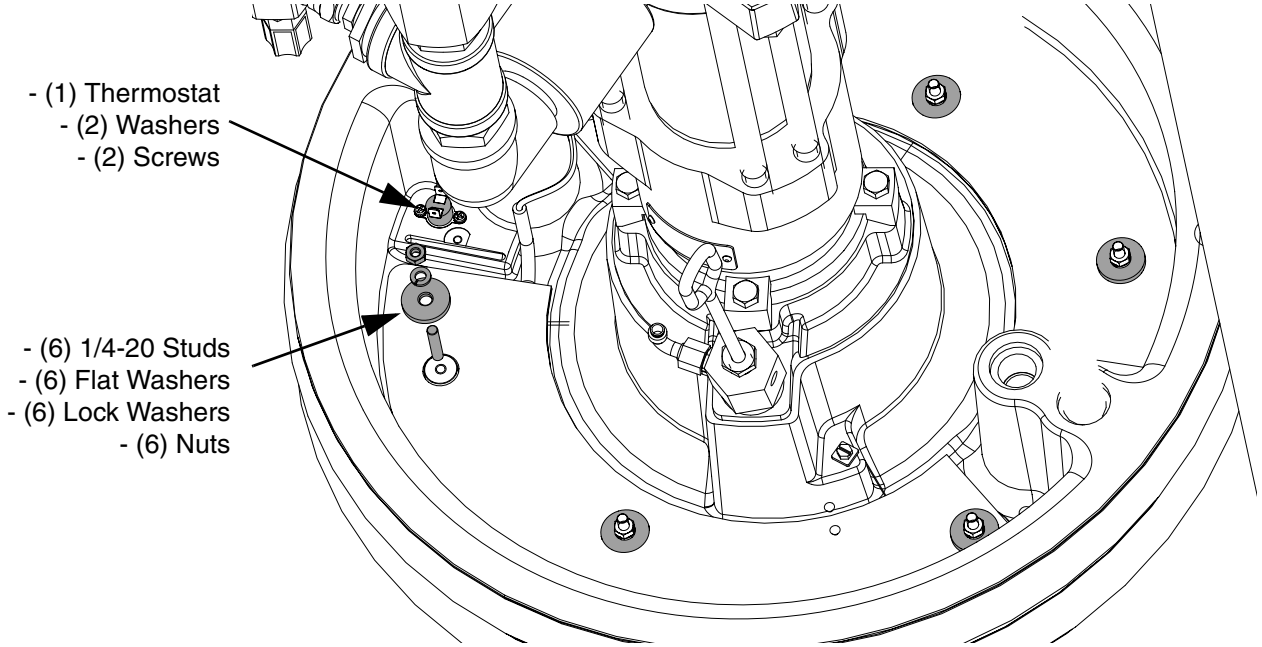
a. Perform **Change Drums** procedure in the Air-Powered Ram manual. Do not load a new drum.

b. Perform **Shutdown** procedure in the Exact-aBlend AGP Advanced Glazing Proportioner, Setup-Operation manual.

c. Thoroughly clean all material that may be found on the top of the platen.

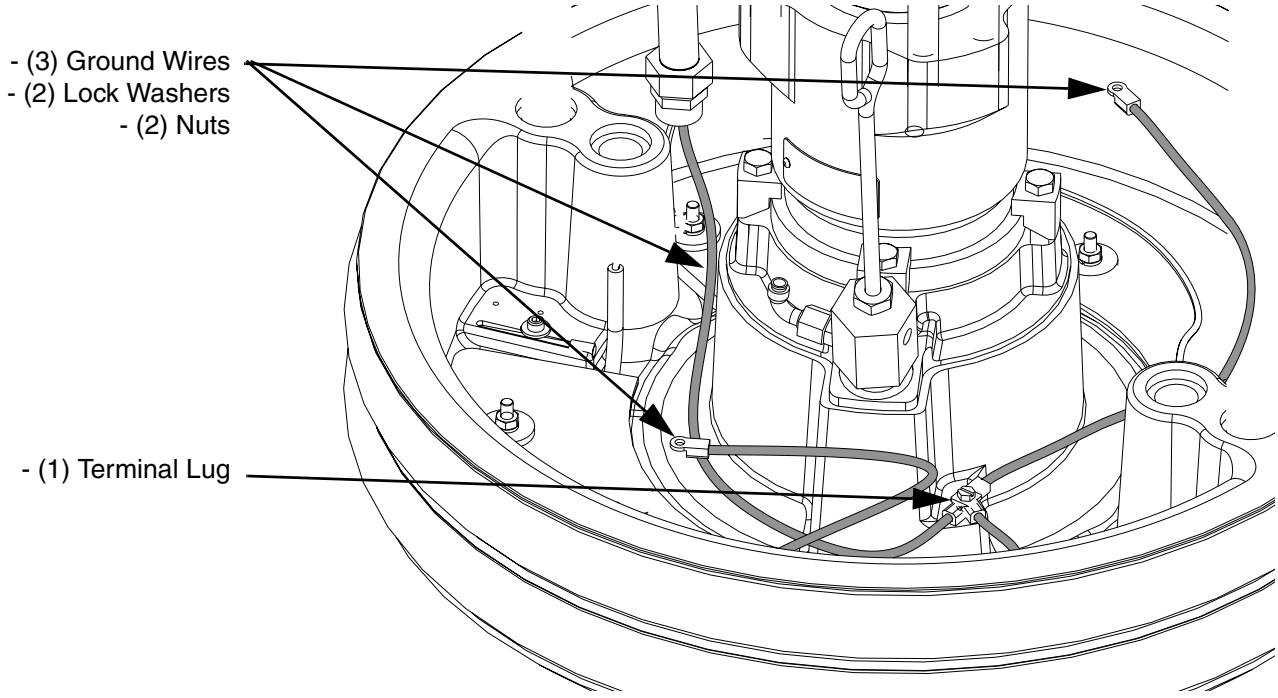
d. Turn off all sources of power to the machine.

## 2. Install the Heat Coils and the Thermostat Switch.



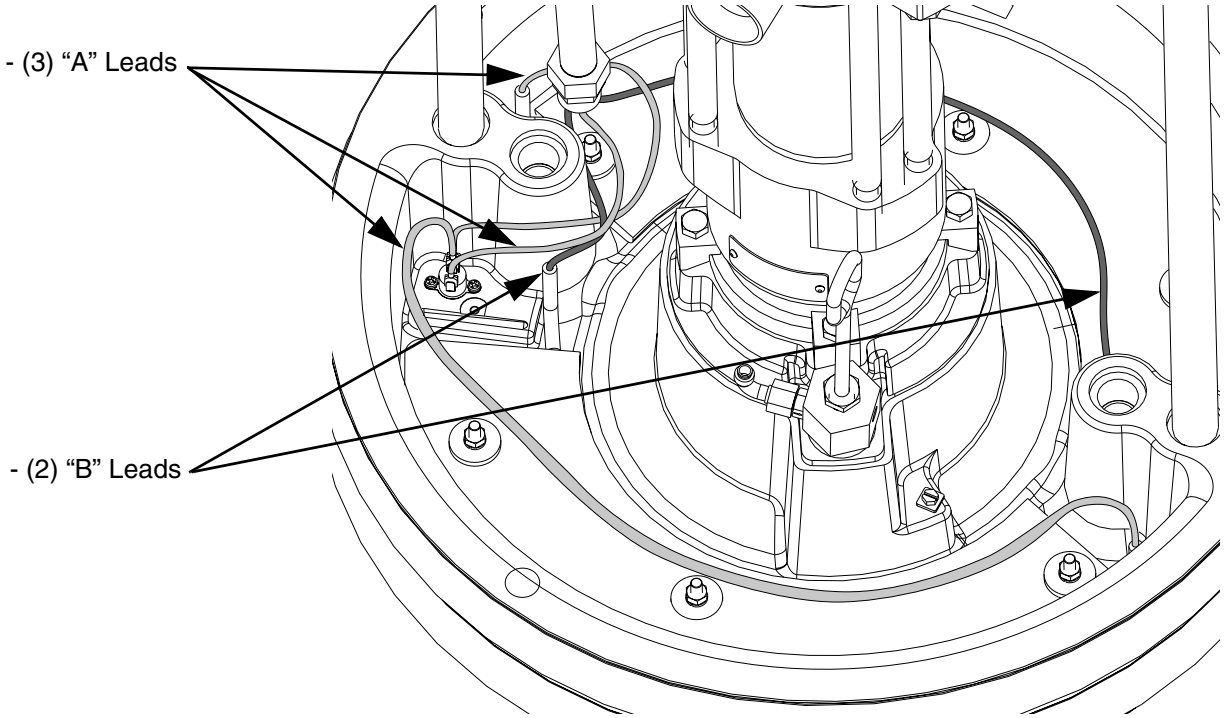

## 3. Connect the Ground Wires.

Connect the ground wires to the terminal lug and to the platen covers (not shown in view). Attach the conduit to the platen cover and route the wires through the conduit when connections are complete.



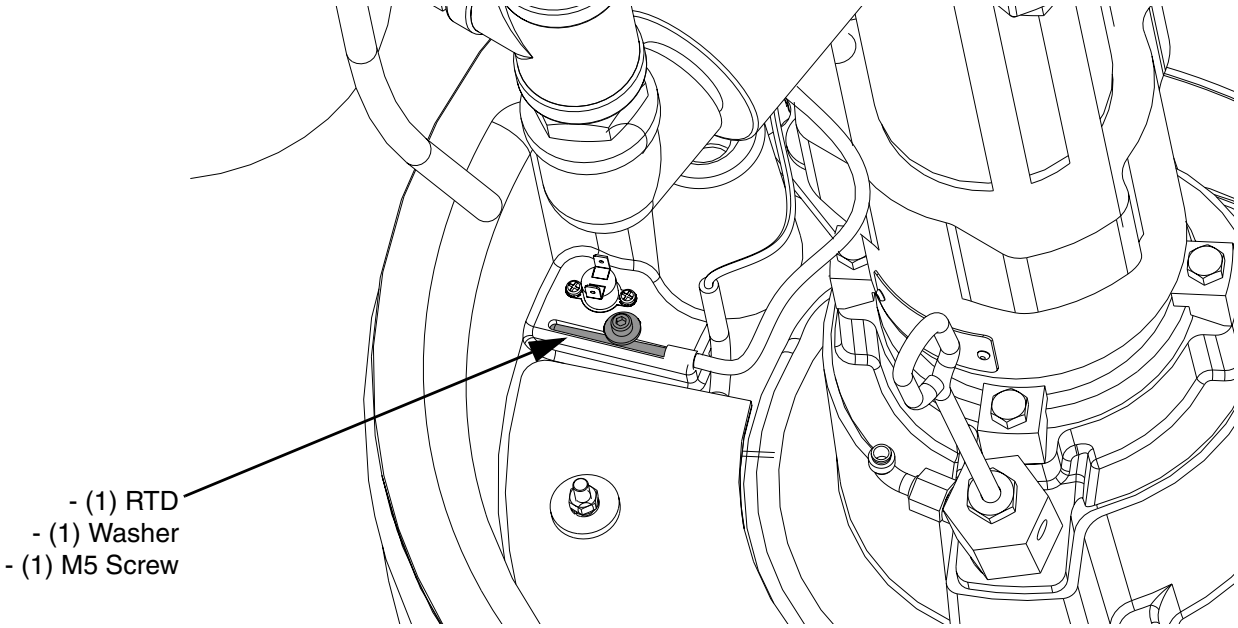
# 4. Connect the Power Leads.

Label “A” and “B” leads for identification in step 10. Route all the wires through the conduit when connections are complete.




# 5. Mount the RTD.

Route the wire through the conduit when connections are complete.

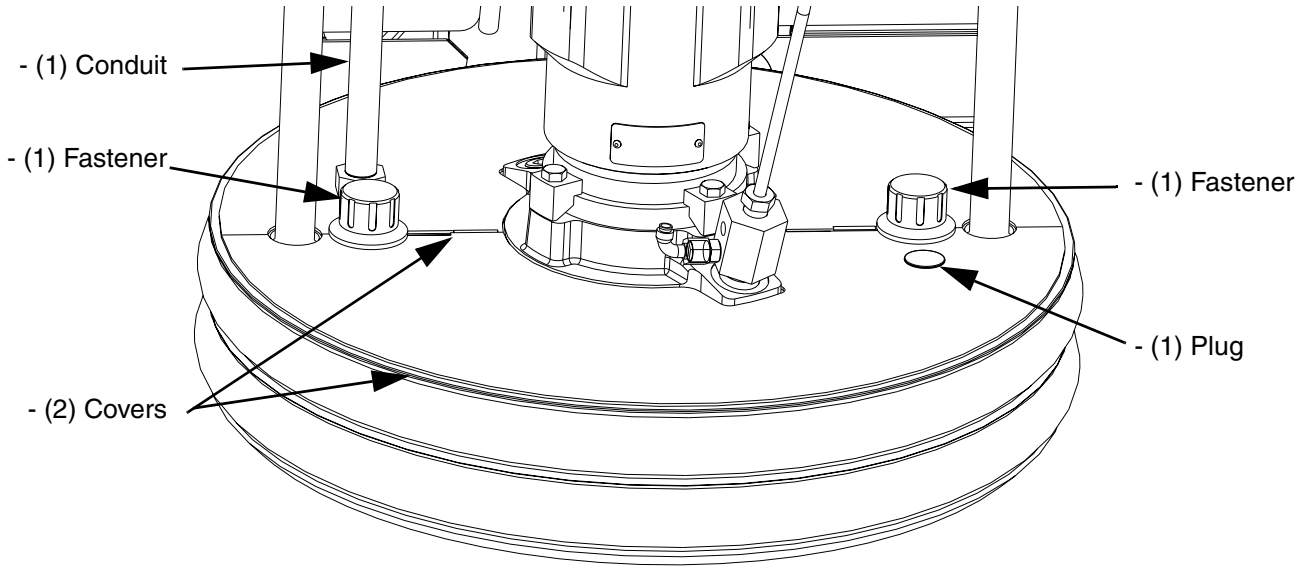


# 6. Attach the Platen Covers.

**NOTICE**

To prevent damage to wires, ensure wires are not pinched when assembling and securing platen covers.

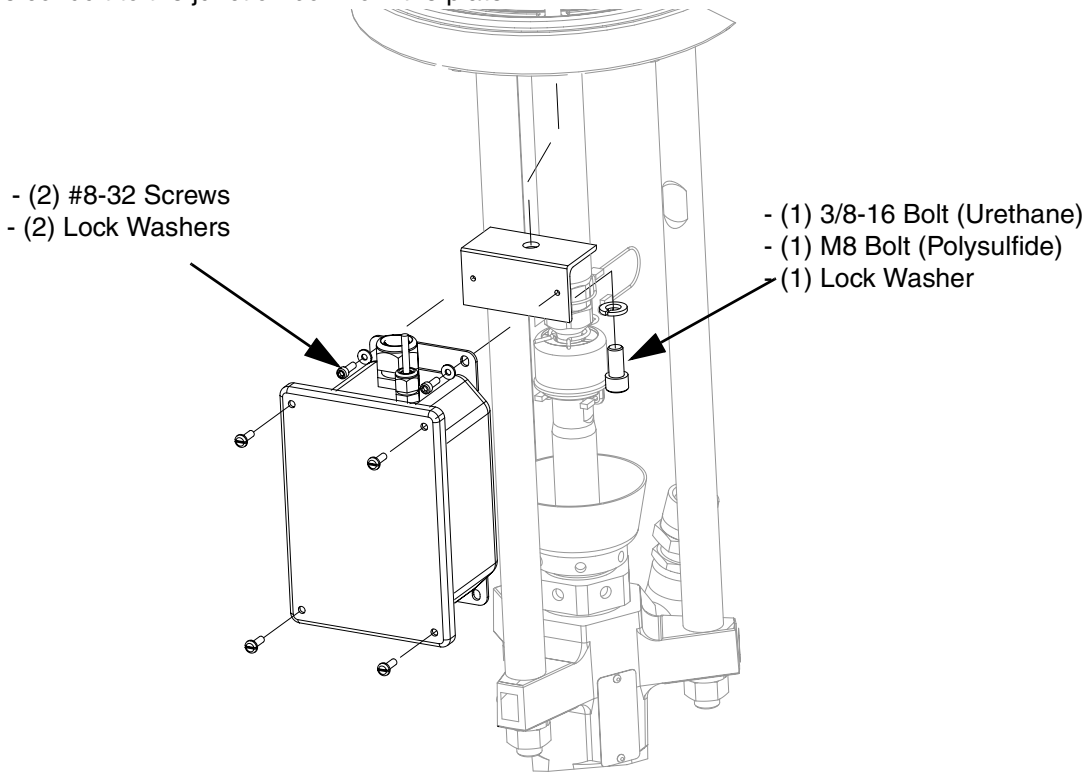
**NOTE:** Torque the platen cover fasteners to 60 +/- 10 in-lbs (6.8 +/- 1.1 N•m).



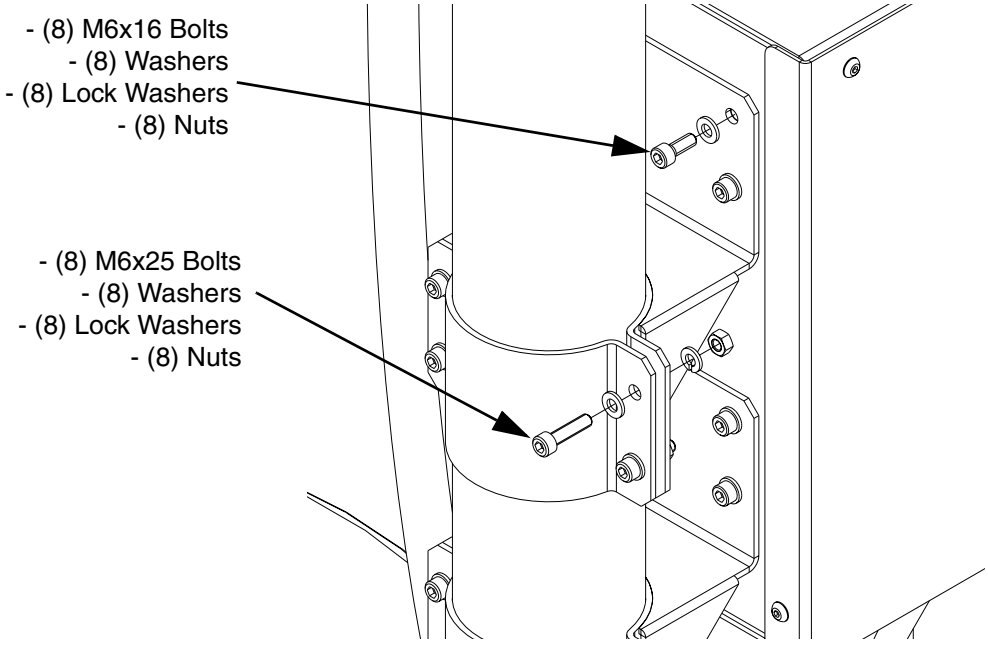
# 7. Mount the Junction Box.

a. Mount the junction box to the air motor located on the 55 gallon (208 liter) ram.

b. Route the conduit to the junction box from the platen.

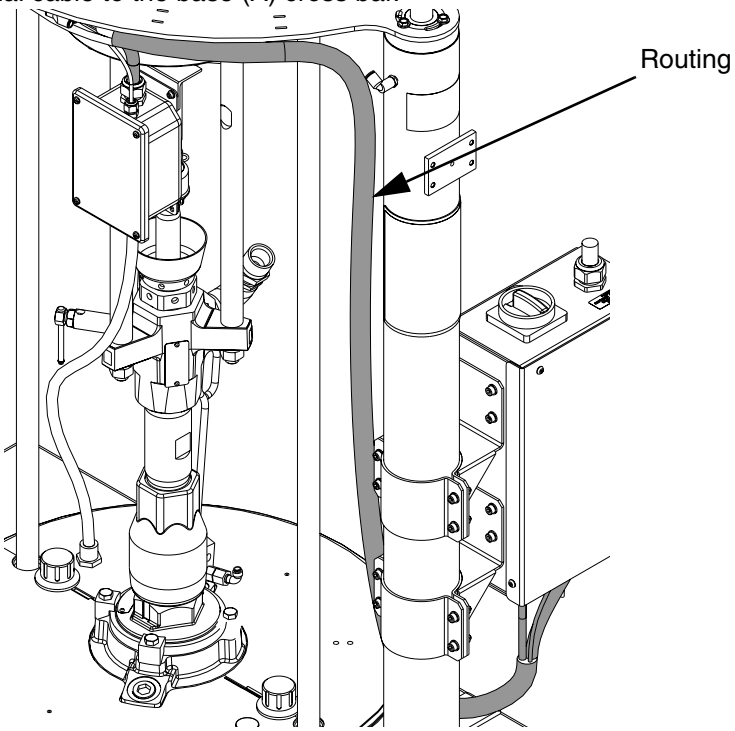



# 8. Mount the Heat Electrical Panel on the 5 Gallon (19 liter) Ram.



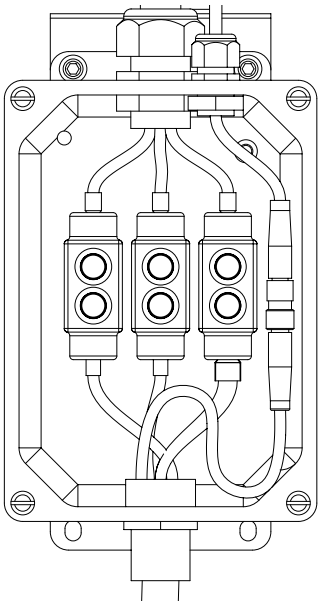
# 9. Route the Power Cord and Signal Cable to the Junction Box.

Secure the power cord and signal cable to the base (A) cross bar.

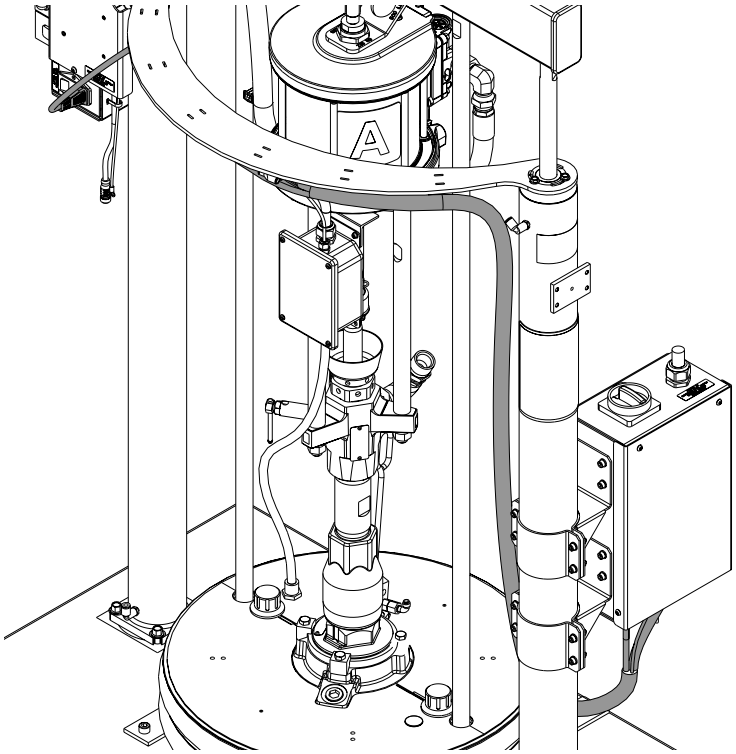



# 10.Connect the Leads in the Junction Box.

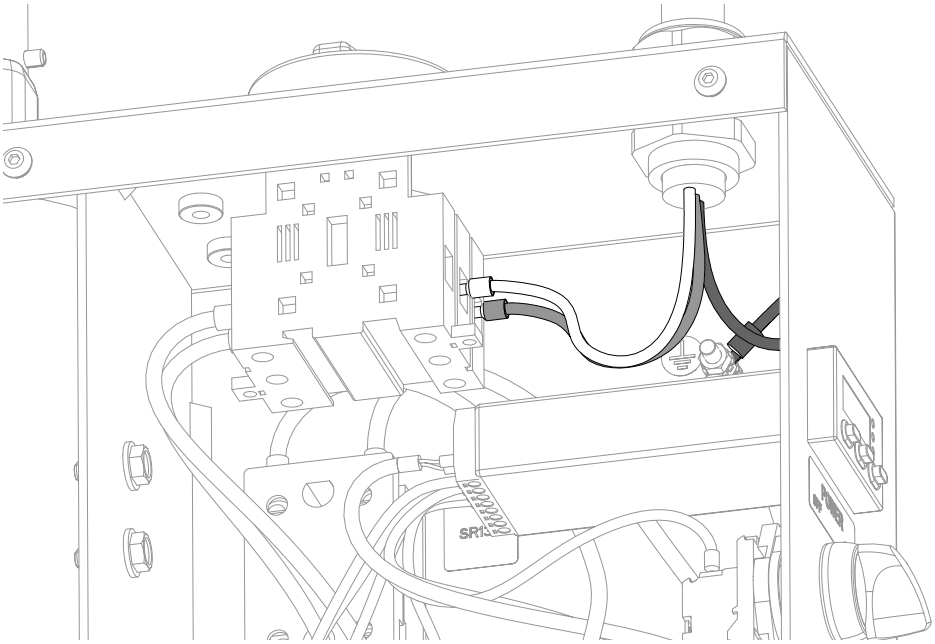
Connect “A” leads, “B” leads, ground, and signal cable within the junction box. Replace the cover.



## 11.Connect the Power Cable from the Heat Electrical Enclosure to the Main Electrical Enclosure.

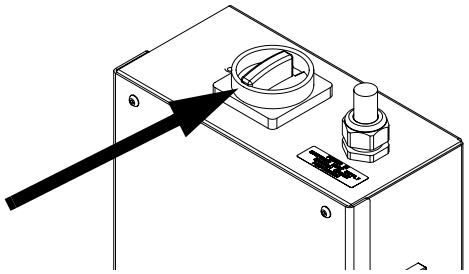



## 12.Connect Power to the Terminals and Ground.

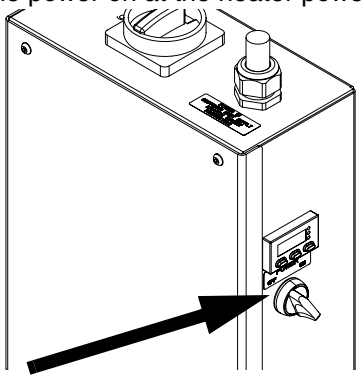


# Setup

1. Turn the power on at the heated platen electrical enclosure.

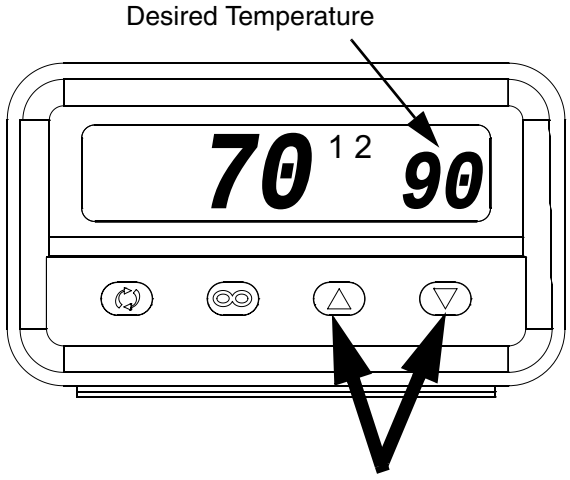


2. Turn the power on at the heater power switch.



3. Set the desired platen temperature by pressing either the up or down arrow keys.

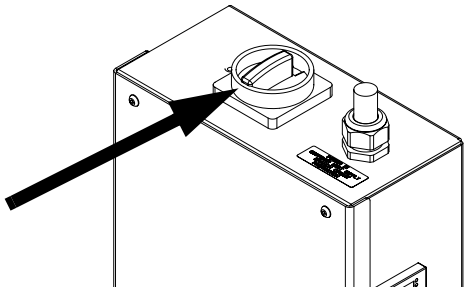
**NOTE:** Temperature is displayed in Fahrenheit.



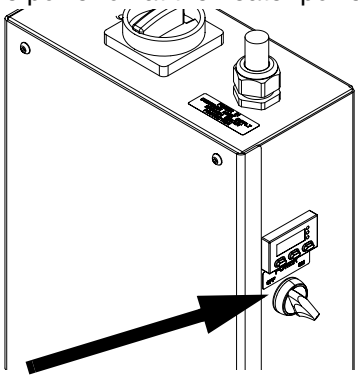
# Operation

## Startup

1. Turn the power on at the heated platen electrical enclosure.



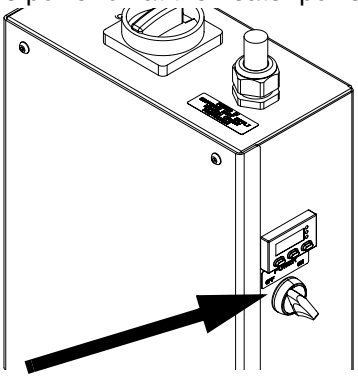
2. Turn the power on at the heater power switch.



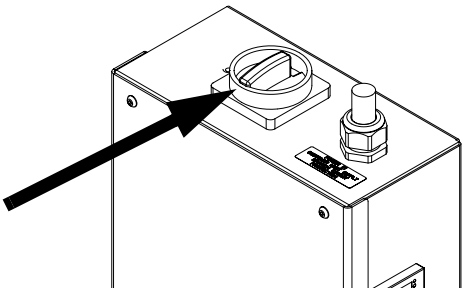
3. Set the desired temperature. Refer to page 5 for details.

## Shutdown

1. Turn the power off at the heater power switch.



**NOTE:** If the entire machine is to be disconnected from electrical power, turn the power off at the heated platen electrical enclosure.



# Maintenance

## Platen Maintenance

If the platen does not come out of the pail easily when the pump is being raised, the air assist tube or check valve may be plugged. A plugged valve prevents air from reaching the underside of the plate to assist in raising it from the pail.

1. Turn off main disconnect at the machine.
2. Allow equipment to cool.
3. Relieve pressure and disassemble air assist valve. Refer to Supply Systems Repair-Parts manual.
4. Clear air assist tube in platen. Clean all parts of valve and reassemble. Refer to Supply Systems Repair-Parts manual.
5. Remove bleed stick from platen. Push bleed stick through bleed relieve port (P) to remove material residue. See FIG. 3.
6. Remove platen covers. See FIG. 3.
   a. Remove platen cover fasteners (F).
   b. Remove both platen covers (C) and ground wire from platen.
7. Remove any excess fluid. Use a soft wire brush on heater coils (H). See FIG. 3.
8. Inspect platen heater blocks (B) or heater (H) for burn or melt spots. Replace platen heater if necessary. See FIG. 3.
9. Check for loose connections and damaged wires.
10. Follow steps in reverse order to reassemble platen.

**NOTE: Torque platen cover fasteners (F) to 60 +/- 10 in-lbs (6.8 +/- 1.1 N•m) for 55 gallon platen.**

### Remove and Reinstall Platen Wipers

Refer to **Supply Units Repair-Parts** manual for instructions.

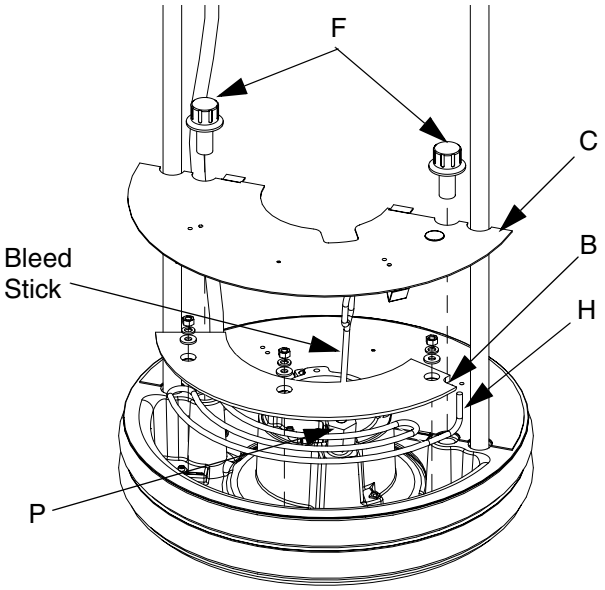



**FIG. 3: Remove Platen Covers and Heaters**

# Troubleshooting

Before performing any troubleshooting procedure:

1. Perform **Pressure Relief Procedure** In the ExactaBlend AGP Advanced Glazing Proportioner, Setup-Operation manual.
2. Turn off main disconnect at the machine.
3. Allow equipment to cool.

Try the recommended solutions in the order given for each problem, to avoid unnecessary repairs. Also, determine that all circuit breakers, switches, and controls are properly set and wiring is correct before assuming there is a problem.

## Common Problems

| Problem | Cause | Verification | Solution |
|---|---|---|---|
| Heating is slow. | Low power. | Measure voltage across circuit breakers. Voltage should measure between 190 and 264 Vac. | 1. If voltage is lower than expected, use electrical schematic to locate faulty wiring or connection.<br>2. Have a qualified electrician service electrical components. |
| Heating over shoots. | Defective solid state relay. | Verify for given zone that temperature does not increase when zone is disabled. | Verify RTD wire or heater power cord is attached to correct heat module. |
| | | | Replace relay. |

| Problem | Cause | Verification | Solution |
|---|---|---|---|
| No heat. | Tripped circuit breaker. | Visually check circuit breaker for a tripped condition. | Determine cause of tripped circuit breaker. Then repair fault and reset main circuit breaker. |
| | Low power. | Measure voltage across circuit breakers. Voltage should measure between 190 and 264 Vac. | 1. If voltage is lower than expected, use electrical schematic to locate faulty wiring or connection.<br>2. Have a qualified electrician service electrical components. |
| | Cable unplugged/loose wire. | Check for loose or disconnected wires and plugs. | Attach plug/wire. |
| | Incorrect temperature set point. | Verify zone has a correct temperature setting on the controller. | Enter Setup and enter correct temperature. |
| | Contactor not closing. | Turn on heat for zone A1 and ensure contactor closes. | 1. Verify that there are no other error conditions that would prevent heater from starting.<br>2. Replace contactor. |

# Repair

## Replace Platen Heaters and Sensor

### 55 Gallon Platen Heater and Sensor

1. Turn off main disconnect at the machine.
2. Allow equipment to cool.
3. Remove both platen cover fasteners (F).
4. Remove both platen covers (C) and ground wire from platen.

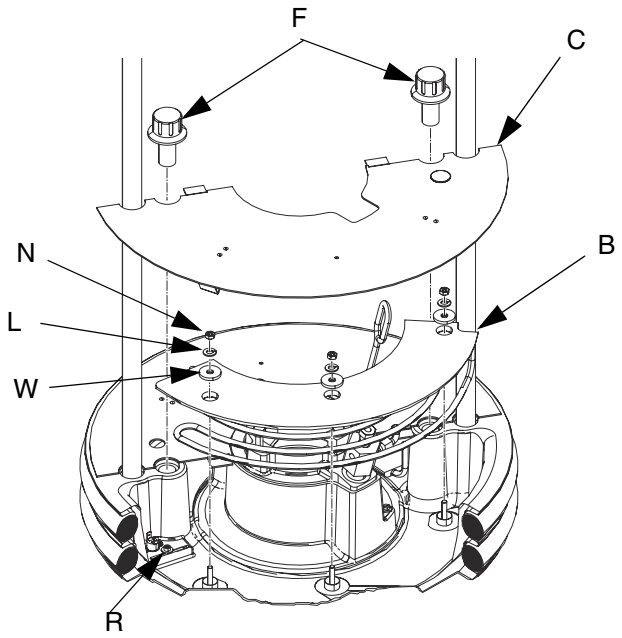
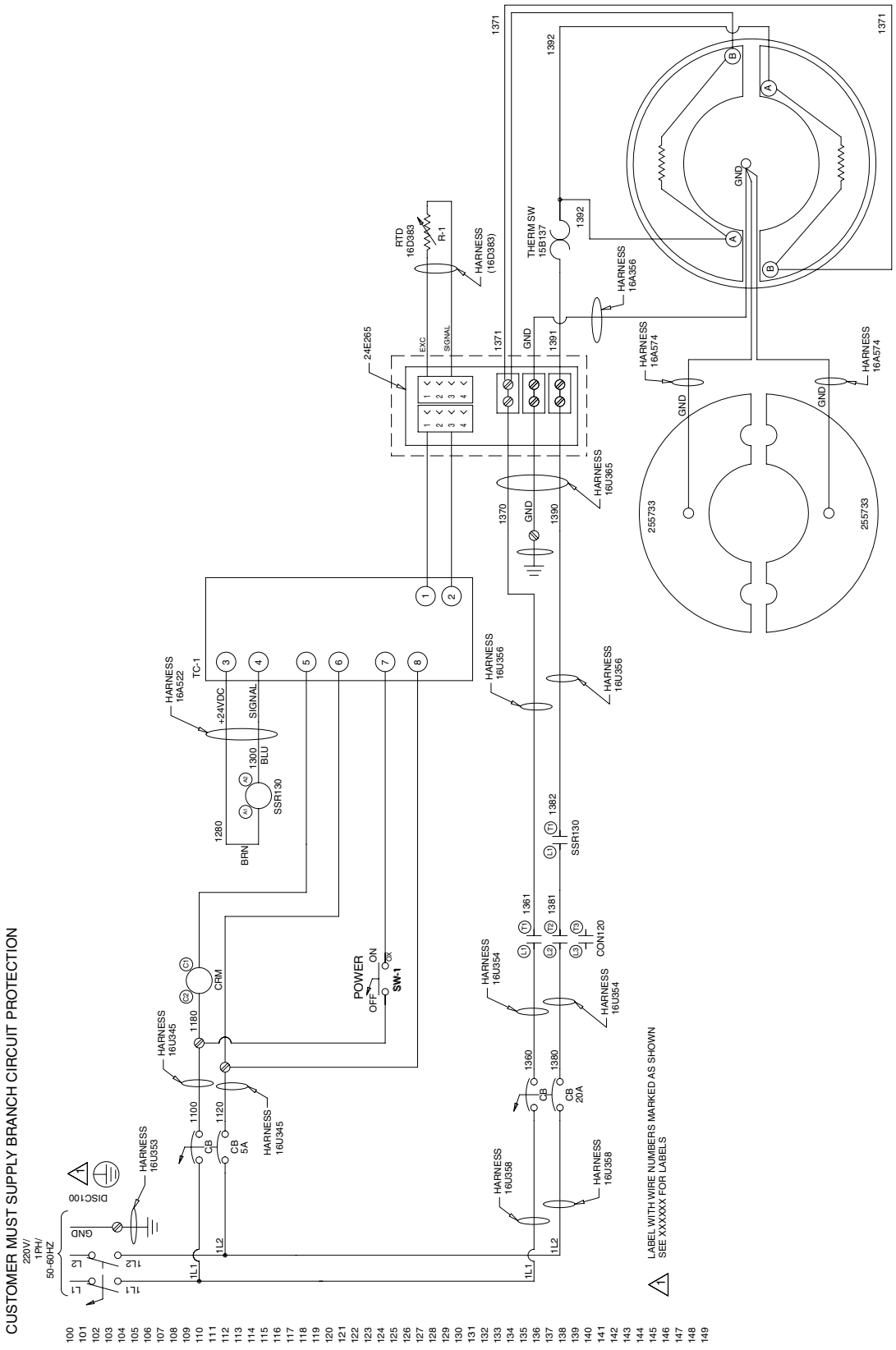



**FIG. 4: Replace Platen Heaters and RTD sensor (R)**

5. Remove platen heater blocks (B).
   a. Use a hex wrench to remove three nuts (N) and washers (L, W) from each heater block.
   b. Remove screws from junction box cover. Loosen strain relief nut, and remove junction box cover.
   c. Disconnect four platen heater wires (labeled A and B) and RTD sensor (R) connector in the terminal box.
   d. Remove screws and washers. Remove platen heater blocks (B) and RTD sensor (R).
6. Install new platen heaters and RTD sensor (R). Secure RTD sensor (R) with screw and washer. Secure platen heater blocks with nuts and washers.
7. Label platen heater wires A and B. Reroute platen heater wires and platen RTD sensor (R) through the conduit to the junction box. Reconnect the four wires to the appropriate terminal block A and B. Reconnect the platen RTD sensor (R).
8. Reinstall junction box cover. Secure with screws and tighten strain relief nut.
9. Reconnect ground wire, and install platen covers. Secure platen covers with fasteners. Torque platen cover fasteners to 60 in-lbs +/- 10 in-lbs (6.8 +/- 1.1 N•m).

# Schematic


CUSTOMER MUST SUPPLY BRANCH CIRCUIT PROTECTION
220V/ 1PH/ 50-60HZ
L1
L2
GND
DISC100
HARNESS 16U353
CB 5A
1100
1120
1L1
1L2
HARNESS 16U345
1180
CRM
HARNESS 16U345
POWER
OFF
ON
SW-1
HARNESS 16A522
TC-1
+24VDC
SIGNAL
1300
BLU
SSR130
1280
BRN
HARNESS 16U356
HARNESS 16U356
HARNESS 16U354
HARNESS 16U354
CON120
1361
1381
SSR130
1382
1360
1380
CB 20A
HARNESS 16U358
HARNESS 16U358
HARNESS 16U365
1370
GND
1390
24E265
EXC
SIGNAL
1371
GND
1391
RTD 16D383
R-1
HARNESS (16D383)
THERM SW 15B137
1392
HARNESS 16A356
1371
1392
GND
HARNESS 16A574
HARNESS 16A574
GND
GND
255733
255733
LABEL WITH WIRE NUMBERS MARKED AS SHOWN
SEE XXXXXX FOR LABELS

# Parts

## Heated Platen Kit, 24R200

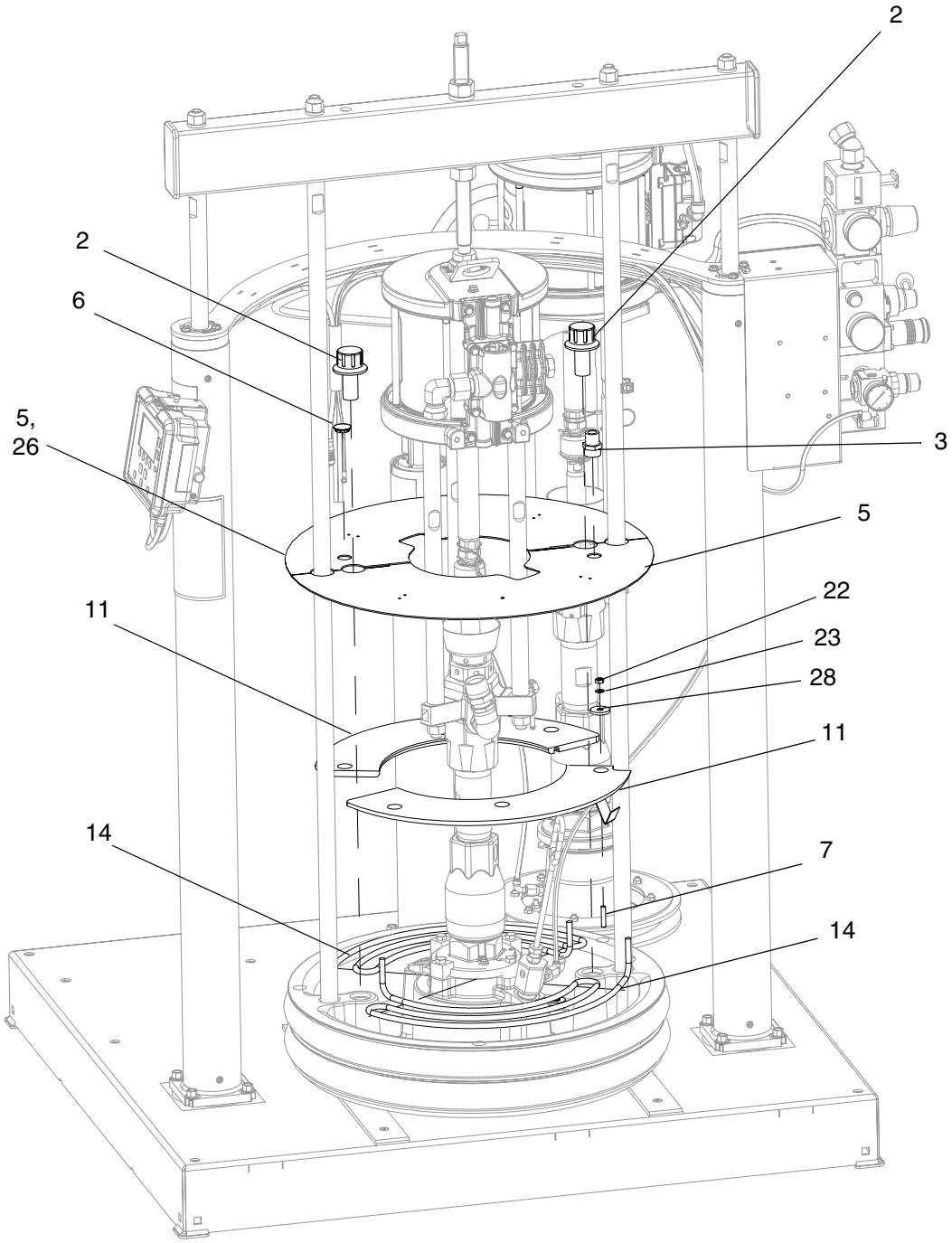



**FIG. 5: Heated Platen Kit**

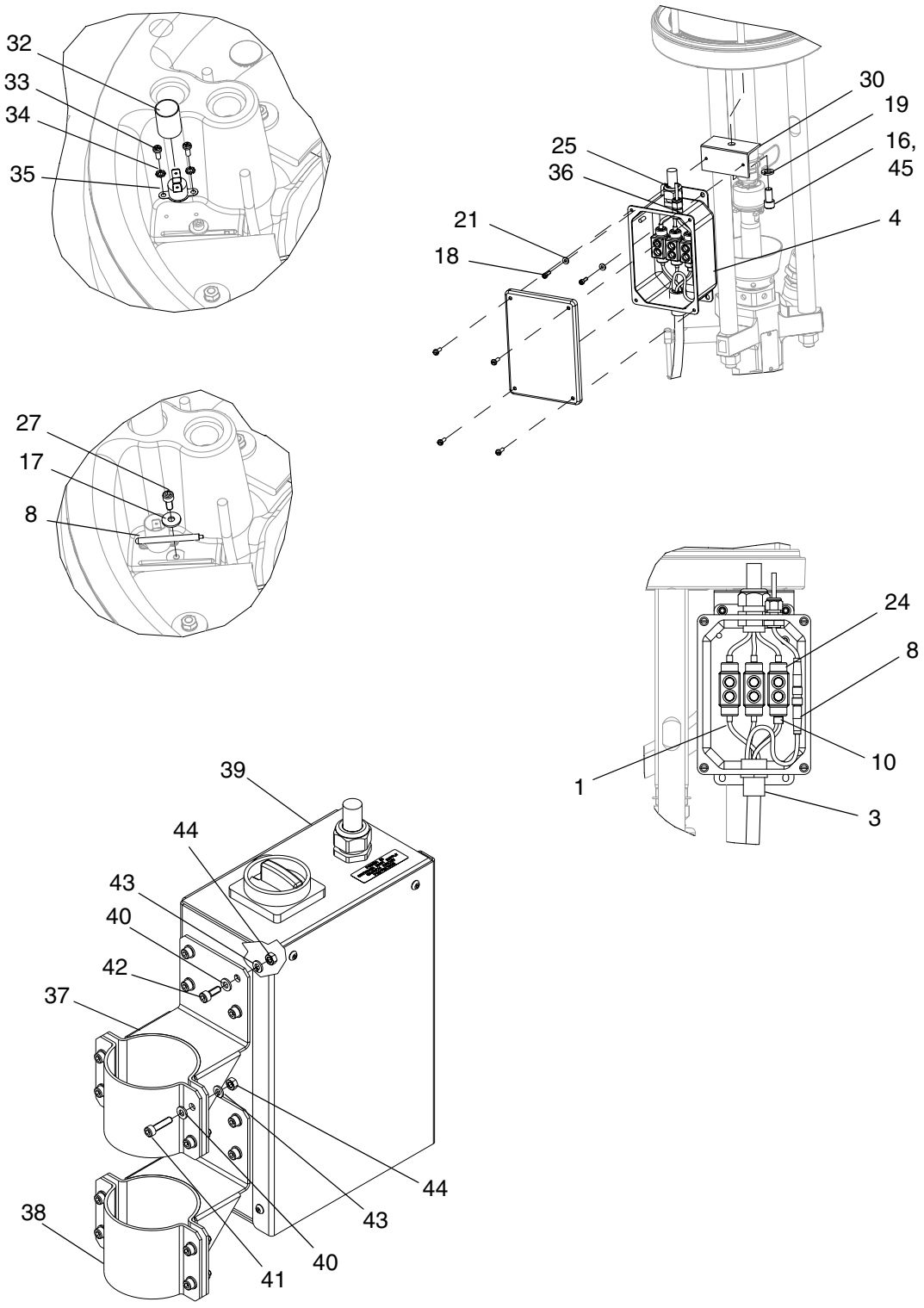



**FIG. 6: Heated Platen Kit**

| Ref | Part | Description | Quantity |
|---|---|---|---|
| 1 | --- | FERRULE, wire, 14awg | 2 |
| 2 | --- | FASTENER, platen, cover | 2 |
| 3 | --- | COUPLER, conduit | 2 |
| 4 | --- | ENCLOSURE, platen, heated | 1 |
| 5 | --- | COVER, platen front, assembly | 2 |
| 6 | --- | PLUG, finishing, 13/16, nickel plate | 1 |
| 7 | --- | STUD, 1/4-20 x 1.25 | 6 |
| 8 | 16D383 | SENSOR, RTD, 1k ohm, shielded | 1 |
| 9 | --- | NUT, full hex, 10-32 | 2 |
| 10 | --- | FERRULE, wire, 14awg, twin | 1 |
| 11 | --- | CONDUCTOR, block, heater | 2 |
| 12 | --- | WIRE, ground | 2 |
| 13 | --- | WIRE, ground | 1 |
| 14 | 15V427 | HEATER, coil | 2 |
| 15 | --- | CONDUIT, 12.9mm | 2.70 |
| 16 | --- | SCREW, cap, 3/8-19x3/4 | 1 |
| 17 | --- | WASHER, M5 | 1 |
| 18 | --- | SCREW, cap, 8-32x1/2 | 2 |
| 19 | --- | WASHER, lock, 3/8 | 1 |
| 20 | --- | WASHER, lock, internal, M5 | 2 |
| 21 | --- | WASHER, flat, #6 | 2 |
| 22 | --- | NUT, hex, 1/4-20 | 6 |
| 23 | --- | WASHER, lock, 1/4 | 6 |
| 24 | 261821 | CONNECTOR, wire, 6awg | 2 |
| 25 | --- | GRIP, cord, 0.39-0.56, 1/2 | 1 |
| 26 ▲ | 15J075 | LABEL, safety, hot surface & energized | 1 |
| 27 | --- | SCREW, M5-0.8x12mm | 1 |
| 28 | --- | WASHER, flat, special | 6 |
| 29 | --- | SCREW, ground, M5-0.8x13mm | 1 |
| 30 | --- | BRACKET, enclosure, platen | 1 |
| 32 | --- | TUBE, shrink | 1 |
| 33 | --- | SCREW, machine, 6-32x3/8 | 2 |
| 34 | --- | WASHER, lock external, #6 | 2 |
| 35 | 15B137 | SWITCH, over temperature | 1 |
| 36 | --- | GRIP, cord, straight | 1 |

| Ref | Part | Description | Quantity |
|---|---|---|---|
| 37 | --- | BRACKET, mount, top | 2 |
| 38 | --- | BRACKET, mounting, ram | 2 |
| 39 | 24R870 | MODULE, heat | 1 |
| 40 | --- | WASHER, M6 | 16 |
| 41 | --- | SCREW, socket head, M6x25mm | 8 |
| 42 | --- | SCREW, socket head, M6x16mm | 8 |
| 43 | --- | WASHER, lock, M6 | 16 |
| 44 | --- | NUT, hex, M6 | 16 |
| 45 | --- | SCREW, cap, M8x20mm | 1 |

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

--- *Not available for individual sale.*

# Heat Enclosure, 24R870

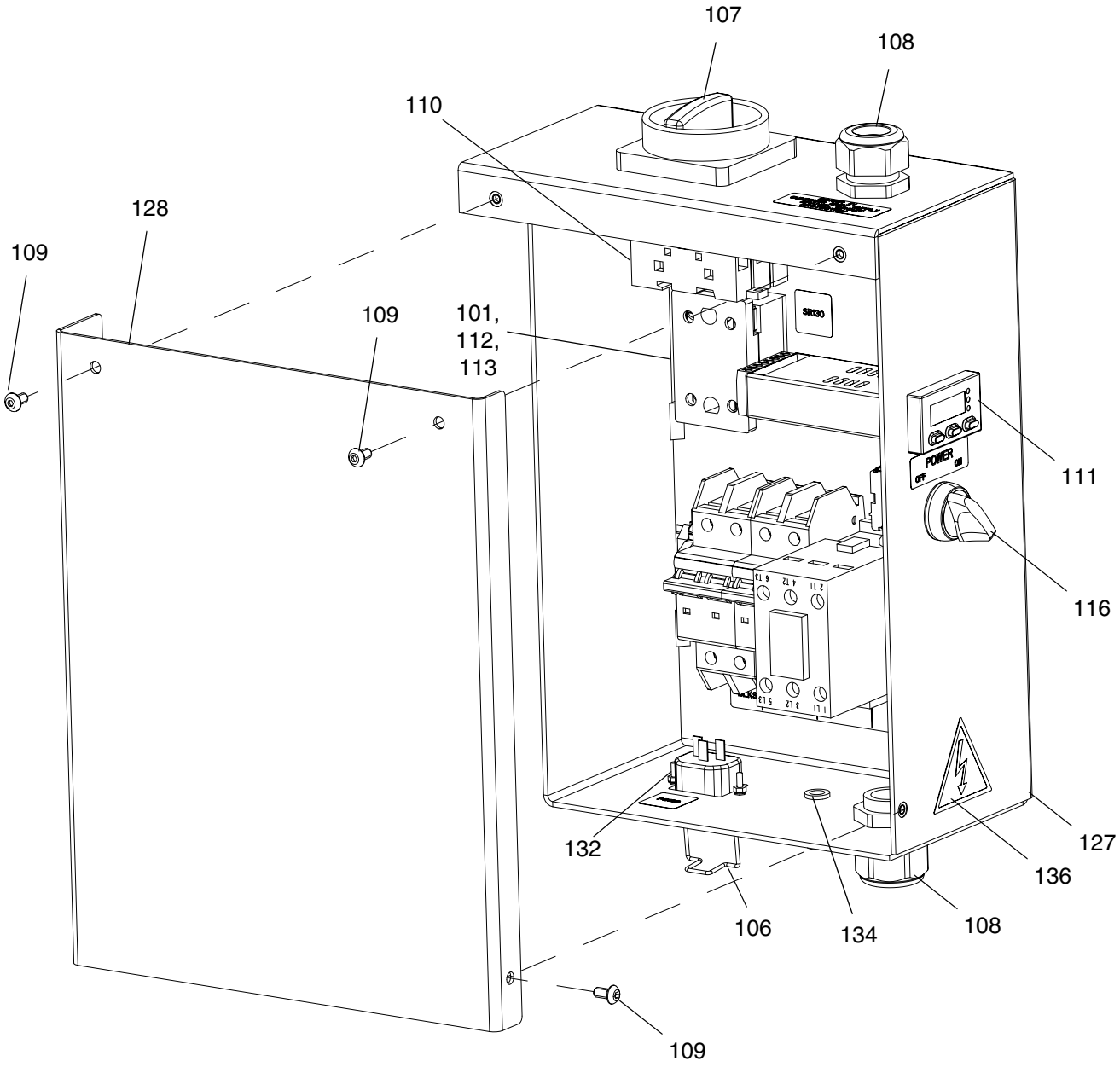



**FIG. 7: Heat Module**

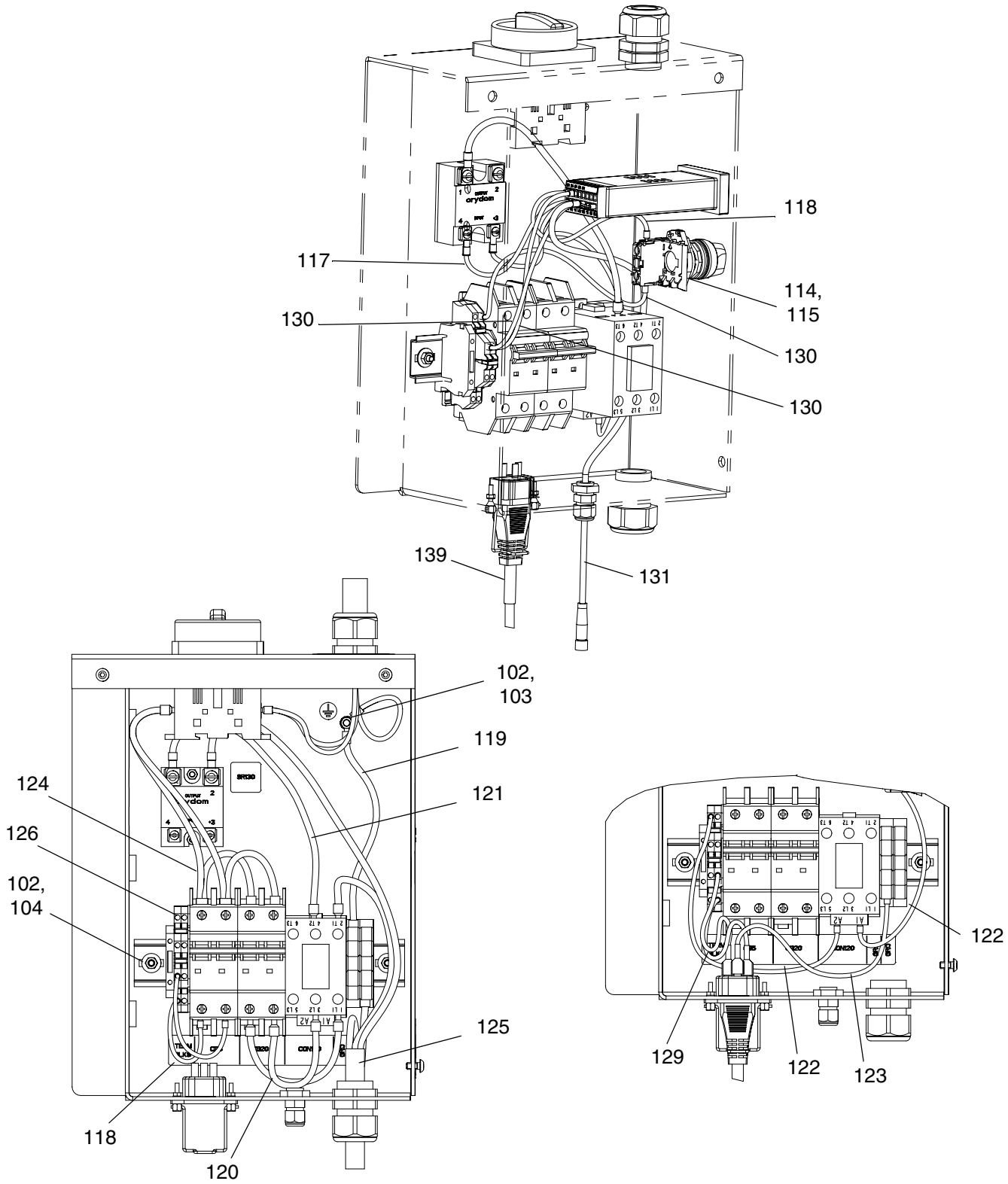



**FIG. 8: Heat Module**

| Ref | Part | Description | Quantity |
|---|---|---|---|
| 101 | --- | NUT, machine hex, M4-0.7 | 2 |
| 102 | --- | NUT, hex, M5-0.8 | 5 |
| 103 | --- | WASHER, lock, external, M5 | 3 |
| 104 | --- | WASHER, plain, #10 | 2 |
| 106 | --- | RETAINER, cord | 1 |
| 107 | 121148 | HANDLE, disconnect, electrical | 1 |
| 108 | --- | GRIP, cord | 2 |
| 109 | --- | SCREW, M5-0.8x10mm | 4 |
| 110 | 126999 | SWITCH, disconnect, 32a | 1 |
| 111 | 24R941 | MODULE, controller, heat, program | 1 |
| 112 | 127106 | RELAY, solid-state, 240v/50a | 1 |
| 113 | 127107 | COVER, relay, solid-state, 240v/50 | 1 |
| 114 | --- | LATCH, operator | 1 |
| 115 | --- | BLOCK, contact, normally open | 1 |
| 116 | --- | SWITCH, operator, selector | 1 |
| 117 | --- | HARNESS, single, 16ga, black | 2 |
| 118 | --- | HARNESS, single, 16ga, black | 3 |
| 119 | --- | HARNESS, single, 10ga, green/yellow | 1 |
| 120 | --- | HARNESS, single, 10ga, black, | 2 |
| 121 | --- | HARNESS, single, 10ga, green/yellow | 1 |
| 122 | --- | HARNESS, single, 16ga, black | 2 |
| 123 | --- | HARNESS, single, 16ga, green/yellow | 1 |
| 124 | --- | HARNESS, double, 10ga, black | 2 |
| 125 | --- | HARNESS, 3 connector, 12ga | 1 |
| 126 | --- | MODULE, din | 1 |
| 127 | --- | BRACKET, mounting, heat, ram | 1 |
| 128 | --- | COVER, bracket, mounting, heat, ram | 1 |
| 129 | --- | HARNESS, sing, 16ga, black | 2 |
| 130 | --- | HARNESS, sing, 16ga, black | 3 |
| 131 | --- | HARNESS, m8, 4pin | 1 |
| 132 | --- | CONNECTOR, power, panel mount | 1 |
| 134 | --- | GRIP, cord | 1 |
| 136 ▲ | 196548 | LABEL, warning, shock | 1 |
| 139 | 121599 | CORD, power, v-lock | 1 |

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

--- *Not available for individual sale.*

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